

CLAIMS

What I claim is:

1. A monolithic building defining an interior chamber and having an access opening enabling entry into and exit from the chamber, and a rigid unitary door operatively associated with the building and adapted for lateral movement between a first position closing said access opening and a second position enabling passage through the access opening, said door having a three-dimensional convex external contour substantially similar to an outer convex contour of the dome shaped building adjacent the access opening, said door being supported on the building so as to enable lateral movement such that the door complements the dome shape when in its first position and is disposed adjacent a wall of the dome shaped building when in its second position.

2. A monolithic building as defined in claim 1 wherein the building includes a floor surface, said door having a lower margin operatively associated with roller wheel means for engaging the floor surface in rolling contact therewith and at least partially supporting the door.

3. A monolithic dome building as defined in claim 1 wherein the door is supported at an upper margin on a substantially horizontal guide track for lateral movement between said first and second positions, said guide track extending internally of said chamber adjacent a wall of the building so that the door is disposed in closely spaced relation to said wall when in its second position.

4. A monolithic dome building as defined in claim 1 wherein said interior chamber is defined by an outwardly convexly curved peripheral wall having a substantially uniform transverse thickness, and including a substantially horizontal guide track affixed to an inner surface of said wall adjacent the access opening, said door having means adjacent an upper marginal edge thereof for mutual cooperation with said track to enable lateral sliding movement of the door between said first and second positions.

5. A monolithic dome building as defined in claim 3 wherein said door includes guide rollers adjacent the upper margin thereof for operative association with said guide track so as to facilitate lateral movement of the door along the track.

6. A monolithic dome building as defined in claim 2 wherein the door is supported at an upper margin on a substantially horizontal guide track for lateral movement between said first and second positions, said guide track extending internally of said chamber adjacent a wall

of the building so that the door is disposed in closely spaced relation to said wall when in its second position.

7. A monolithic dome building as defined in claim 6 wherein said access opening is generally rectangular when considered in front elevation, said door having a similar generally rectangular peripheral configuration and having an outer three-dimensional convex contour substantially similar to the outer convex curvature of the dome shaped building adjacent the access opening.

8. A monolithic dome building as defined in claim 6 wherein said door includes upper and lower rigid frame assemblies that are arcuate in plan view and each has a radius of curvature similar to a radius of curvature of the dome building taken in substantially the same horizontal planes as said upper and lower frame assemblies.

9. A monolithic dome building as defined in claim 8 wherein said door includes a plurality of upstanding horizontally spaced frame members having opposite ends affixed to said upper and lower frame assemblies, said upstanding frame members having outer convex surface profiles similar to a convex profile of the dome building adjacent said access opening, said upstanding frame members having a generally rigid sheet affixed to said outer convex surfaces so as to form a rigid unified door having an outer convex surface.

10. A monolithic dome building as defined in claim 1 wherein said door includes a plurality of upstanding horizontally spaced frame members, said upstanding frame members having outer convex surface profiles similar to a convex profile of the dome building adjacent said access opening, said upstanding frame members having a generally rigid sheet affixed to said outer convex surfaces so as to form a rigid unified door having an outer convex surface.

11. A monolithic dome building as defined in claim 10 including seal means for effecting sealing between an inner surface of the dome building adjacent the access opening and laterally opposite ends of the door and the upper margin of the door when in its first position closing the access opening.

12. A monolithic dome building as defined in claim 10 wherein the door is supported at an upper margin on a substantially horizontal guide track for lateral movement between said first and second positions, said guide track extending internally of said chamber adjacent a wall of the building so that the door is disposed in closely spaced relation to said wall when in its second position.

13. A monolithic dome building as defined in claim 12 wherein said access opening is generally rectangular when considered in front elevation, said door having a similar generally rectangular peripheral configuration and having an outer three-dimensional convex contour substantially similar to the outer convex curvature of the dome shaped building adjacent the access opening.

14. In a dome shaped building having a convexly contoured external peripheral wall defining an interior chamber and having an access opening at ground level enabling entry into and exit from the chamber, and a door closure adapted for movement between a first position closing the access opening and a second position enabling passage through the access opening; the improvement wherein the door comprises a unitary door having an upper margin supported on a substantially horizontal guide track for lateral movement between said first and second positions, said door having a three-dimensional exterior contour substantially similar to the convexly contoured external wall of the dome shaped building adjacent the access opening so that the door is similarly configured to the dome shaped building when in its first closed position and is disposed generally adjacent the wall of the dome shaped building when in its second position.

15. A dome shaped building as defined in claim 14 including a floor surface, said door having a lower margin including roller wheel supports affixed thereto for engaging the floor surface in rolling contact therewith.

16. A dome shaped building as defined in claim 14 wherein said convexly contoured external wall of the building has a substantially uniform thickness, said guide track being affixed to an inner surface of said wall adjacent the access opening, said door having means adjacent its upper margin for mutual cooperation with said track to enable lateral sliding movement of the door between its first and second positions.

17. A dome shaped building as defined in claim 16 wherein said means adjacent the upper margin of said door includes rollers operatively associated with said track so as to facilitate lateral rolling movement of the door along the track.

18. A dome shaped building as defined in claim 14 wherein said access opening is generally rectangular when considered in front elevation, said closure comprising a unitary door having a generally rectangular peripheral configuration and having an arcuate outer surface

profile substantially similar to the profile of the dome shaped building adjacent the access opening.

19. A dome shaped building as defined in claim 18 wherein said door includes a plurality of upstanding horizontally spaced frame members, said upstanding frame members having outer convex surface profiles similar to a convex profile of the dome building adjacent said access opening, said upstanding frame members having a generally rigid sheet affixed to said outer convex surfaces so as to form a rigid unified door having an outer three-dimensional convex surface.

20. A dome shaped building as defined in claim 19 including seal means for effecting sealing between an inner surface of the dome building adjacent the access opening and laterally opposite ends of the door and an upper margin of the door when in its first position closing the access opening.

21. A monolithic dome shaped hangar having an outer convexly contoured peripheral wall defining an interior chamber sized to receive at least one airplane and having a generally rectangular shaped access opening of sufficient size to enable passage of an airplane into and out of the chamber, and a three-dimensional unitary door having a similar convexly contoured outer surface and supported at an upper margin on a horizontal track for lateral movement of the door between a first position closing the access opening and a second position enabling passage through the access opening.

22. A monolithic dome shaped hangar as defined in claim 21 wherein said door includes a rigid frame structure having spaced upstanding frame members disposed between parallel upper and lower arcuately curved frame members, said upstanding frame members having outer convex surfaces that lie in said similar convexly contoured outer surface.

23. A monolithic dome shaped hangar as defined in claim 22 wherein said upstanding frame members have an outer metallic sheet secured to the outer convex edges thereof so also to create a lightweight door, or have a mesh reinforced built-up layer of cemenetitious material formed on the rigid frame structure to create a high strength unitary door construction similar in cross-section to the cross-sectional makeup of the dome shaped building.